

## CLAIMS

1. A conversion system for converting a source disk image supporting a first hardware configuration into a target disk image supporting a second and different hardware configuration, comprising:
  - a first server that mounts the source disk image as a target disk drive;
  - a repository that stores information and files useful for supporting the second hardware configuration;
  - a rules library that facilitates conversion of hardware specific attributes in accordance with an external introspection process (EIP); and
  - a conversion engine, executed on said first server and interfaced with said repository and said rules library, that performs said EIP by examining the source disk image on said target disk drive to determine modifications to convert to the target disk image.
2. The conversion system of claim 1, wherein a target profile is retrieved from said repository and used to determine said modifications.

3. The conversion system of claim 1, wherein said conversion engine includes a profiler tool that generates a target profile when executed on a target server having the second hardware configuration, wherein said target profile is used to determine said modifications.
4. The conversion system of claim 1, wherein said conversion engine includes an inspector tool that examines the source disk image to generate a source profile.
5. The conversion system of claim 4, wherein said conversion engine includes a comparator tool that compares said source profile with a target profile incorporating information of the second hardware configuration.
6. The conversion system of claim 1, wherein said conversion engine includes a simulator tool that simulates installations on said target disk drive and generates conversion data.
7. The conversion system of claim 1, wherein said conversion engine includes an assembler tool that generates a conversion plan that incorporates said modifications.

8. The conversion system of claim 7, wherein said conversion engine includes a conversion tool that executes said conversion plan to make said modifications to the source disk image to achieve said target disk image.
9. The conversion system of claim 8, wherein said conversion plan is configured to remove existing hardware configuration information and to add new hardware configuration information.
10. The conversion system of claim 9, wherein said conversion plan is configured to add and reconcile signature information.
11. The conversion system of claim 1, wherein said conversion engine conducts a test boot procedure that simulates booting a target server configured according to the second hardware configuration and mounted with said target disk drive including said modifications.
12. The conversion system of claim 1, wherein a selected one of the source and target disk images is a hardware-neutral image.
13. The conversion system of claim 1, further comprising an image library storing a master of the source disk image, wherein said image library is communicatively coupled to said first server.

14. The conversion system of claim 1, wherein said repository stores at least one stock conversion plan retrievable by said conversion engine and that incorporates at least a portion of said modifications to convert the source disk image to the target disk image.
15. The conversion system of claim 1, further comprising:
  - a second server communicatively coupled to said first server, wherein the source disk image is mounted to said second server as said target disk drive;
  - said conversion engine including a master conversion engine executed on said first server and a remote conversion engine executed on said second server;
  - said remote conversion engine configured to examine the source disk image on said target disk drive to generate a source profile, to send said source profile to said master conversion engine, and to modify said target disk drive according to a conversion plan; and
  - said master conversion engine configured to determine modifications to the source disk image using said source profile and to generate said conversion plan;wherein said second server forwards said conversion plan to said second server.

16. The conversion system of claim 15, wherein said master conversion engine comprises:

a comparator tool that compares said source profile with a target profile to determine conversion information; and

an assembler tool that assembles said conversion plan using said conversion information and said repository.

17. The conversion system of claim 16, wherein said master conversion engine further comprises a simulator tool that simulates installations on said target disk drive and generates additional conversion data used to determine said conversion plan.

18. The conversion system of claim 16, wherein said remote conversion engine comprises:

a profiler tool that examines the configuration of said second server to generate said target profile, wherein said second server forwards said target profile to said first server;

an inspector tool that examines the source disk image on said target disk drive to generate said source profile; and

a conversion tool that executes said conversion plan to make said modifications to said target disk drive.

19. The conversion system of claim 15, wherein said repository stores a plurality of stock conversion plans retrievable by said master conversion engine.

20. A method of converting a source disk image supporting a first hardware configuration into a target disk image supporting a second and different hardware configuration, comprising:

mounting the source disk image as a target disk drive on a first server;

storing information and files useful for supporting the second hardware configuration and library information that facilitates conversion of hardware specific attributes; and

performing an external introspection process (EIP) by examining the source disk image on the target disk drive to determine conversion modifications to convert the source disk image to the target disk image.

21. The method of claim 20, further comprising retrieving a pre-stored target profile and using the target profile to determine the modifications.

22. The method of claim 20, further comprising:
- executing a profiler tool on a target server having  
        the second hardware configuration to generate a  
        target profile; and
- using the target profile to determine the conversion  
        modifications.
23. The method of claim 20, further comprising examining  
the source disk image to generate a source profile.
24. The method of claim 23, further comprising comparing  
the source profile with a target profile incorporating  
information of the second hardware configuration.
25. The method of claim 20, further comprising simulating  
installations on the target disk drive and generating  
conversion data.
26. The method of claim 20, further comprising generating  
a conversion plan that incorporates the conversion  
modifications.
27. The method of claim 26, further comprising executing  
the conversion plan to make the conversion  
modifications to the source disk image.
28. The method of claim 27, wherein said executing the  
conversion plan includes adding and reconciling  
signature information.

29. The method of claim 20, further comprising simulating booting a target server configured according to the second hardware configuration and mounted with the target disk drive including the conversion modifications.
30. The method of claim 20, further comprising storing a master of the source disk image.
31. The method of claim 20, further comprising storing at least one stock conversion plan that incorporates at least a portion of the conversion modifications.
32. The method of claim 20, further comprising:
  - mounting the source disk image as a target disk drive to a second server communicatively coupled to the first server;
  - executing a master conversion engine on the first server and a remote conversion engine on the second server;
  - examining, by the remote conversion engine, the source disk image on the target disk drive to generate a source profile;
  - forwarding the source profile to the first server;
  - determining, by the master conversion engine, modifications to the source disk image using the source profile;



generating, by the master conversion engine, a  
conversion plan;

forwarding the conversion plan to the second server;  
and

modifying, by the remote conversion engine, the target  
disk drive according to the conversion plan.

33. The method of claim 32, further comprising:

comparing, by the master conversion engine, the source  
profile with a target profile to determine  
conversion information; and

assembling, by the master conversion engine, the  
conversion plan using the conversion information  
and pre-stored repository information.

34. The method of claim 33, further comprising simulating,  
by the master conversion engine, installations on the  
target disk drive and generating additional conversion  
data to determine the conversion plan.

35. The method of claim 33, further comprising:

examining, by the remote conversion engine, the  
configuration of the second server to generate  
the target profile;

forwarding the target profile to the first server;

examining, by the remote conversion engine, the source disk image on the target disk drive to generate the source profile; and

executing, by the remote conversion engine, the conversion plan to make the conversion modifications to the target disk drive.

36. The method of claim 32, further comprising storing a plurality of stock conversion plans retrievable by the master conversion engine.